26. [New] The mobile computer of claim 25 and further comprising a digital to analog converter coupled between the digital signal processor and analog output port.

27. [New] The mobile computer of claim 24 wherein the noise cancellation signal is generated when a source of audio output is activated.

28. [New] The personal computer of claim 6 wherein said microphone is a built-in microphone of said personal computer.

29. [New] The personal computer of claim 28 wherein said noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set of headphones connected via the audio output connection.

30. [New] The personal computer of claim 29 wherein said headphone noise comes from a same source as said ambient noise.

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on November 4, 2002, and the references cited therewith.

Claims 24 - 30 have been added. As a result, claims 1 - 30 are now pending in this application.

§103 Rejection of the Claims

Claims 1-4, 6-20 and 22 were rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) in view of Denenberg (US 5,375,174). This rejection is respectfully traversed because a prima facie case of obviousness has not been established.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The *Fine* court stated that:

> Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *Id.* (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

> In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). At the same time, however, although it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7

USPQ2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness, even if the references are combinable. Claim 1 has been clearly distinguished from Lambrecht on the basis of mixing a noise cancellation signal with an audio signal as stated in the Office Action. Denenberg does not teach or suggest this missing element. At Col. 2, lines 5-20 referenced in the Office Action, "anti-noise channels can simultaneously deliver in-coming communications to the wearer's ears with the anti-noise". There is no discussion in Denenberg regarding how this is accomplished. Thus, there is a lack of teaching of each and every element in claim 1 by the combination and the rejection should be withdrawn. Further, there is no teaching in Denenberg of an audio output connection.

There is also no suggestion to combine the references. They are directed toward different problems. Denenberg is directed toward providing noise cancellation to a wireless headset. In Denenberg, the microphones 34 and 35 are located in the headset 30, and a remote controller 38 is used to process the noise signals and provide the cancellation signal. Lambrecht utilizes a sample signal, so that "the noise cancellation function requires relatively little processing power and is accomplished without the need for special purpose hardware." Abstract. Thus, Lambrecht is directed to a different problem, that of providing noise cancellation while reducing "the processing requirements of the host processor." Col. 2, lines 26 – 27, and also teaches away from including a "digital signal processor for mixing" along with "a noise cancellation module" into a personal computer as claimed. Thus, there is no reason to combine the references. A prima facie case of obviousness has not been established, and the rejection should be withdrawn.

The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). The Office Action stated "it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of Lambrecht and Denenberg to achieve an audio entertainment system or a communications system can be combined with a noise control system and the system of this teaching to provide a quieter

listening environment and better sound fidelity" which is a mere conclusory statement of subjective belief. There is no identification of a suggestion in the art for such a combination. Applicant respectfully submits that the Office Action has not provided objective evidence for a suggestion or motivation to combine the references.

Claims 2, 4, 6, 7 and 22 distinguish the references for at least the same reasons as claim 1 from which they depend, and therefore distinguish the references.

Claim 3 specifically recites the use of software for the cancellation module. As indicated above, Lambrecht, which describes the use of a computer to generate waveforms, clearly teaches away from claim 1 and even more so from claim 3. The goal of Lambrecht is to reduce the processing requirements of the host computer. The use of software to perform the noise cancellation is directly opposed to Lambrecht, and the rejection should be withdrawn.

Claims 8 - 20 also recite detecting ambient noise, generating a noise cancellation signal and mixing that signal with an audio signal in the context of a mobile computer system. Claims 8-20 distinguish the references for the same reasons as claim 1. In claims 13-20, the mixed signal is provided to an audio output connection. The Office Action indicates that such a connection is provided by Denenberg, but fails to point to such teaching.

Claim 5 was rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) and Denenberg (US 5,375,174) as applied to claim 1, and further in view of Eatwell (US 5,828,768). Claim 5 depends from claim 1, in which it has been shown that the references are not combinable, and even if combined, do not teach claim 1 or claim 5.

Claims 21 and 23 were rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) and Denenberg (US 5,375,174) as applied to claims 1, 8, and further in view of Markow (US 6,304,434). Claims 21and 23 depend from claims 1 and 8 respectively, in which it has been shown that the references are not combinable, and even if combined, do not teach claim 1 or claim 5. Markow does not provide the elements missing from the other references, and the rejection should be withdrawn.

New claims 24 - 30 have been added to further define the invention by indicating that the microphone is integrated into a mobile computer, that a profile is used to avoid overcompensating for keyboard clicks, that the noise cancellation signal is based on ambient noise, and that headphone noise comes from the same source as the ambient noise. The claims clearly distinguishe the art for at least the reasons of claim 1.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6972) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 21 day of January, 2003.

Candis B. Buending
Name

_____
Signature